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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,075	03/20/2002	Hermann Putter	220713USOPCT	7569
22850	7590	12/31/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, EDNA	
			ART UNIT	PAPER NUMBER
			1753	
DATE MAILED: 12/31/2003				

Please find below and/or attached an Office communication concerning this application or proceeding..

Office Action Summary	Application No. 10/088,075	Applicant(s) PUTTER, HERMANN	
	Examiner Edna Wong	Art Unit 1753	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10, 13-16 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 7-9, 11, 12 and 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

This is in response to the Amendment dated November 12, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Specification

The abstract of the disclosure has been objected to.

The objection to the abstract has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 112

Claims **1-20** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 1-20 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 103

Claims **1 and 2** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ponomarev et al.** ("Furan Compounds. XIII. Electrolytic Methoxylation of Furan Substances", Zhurnal Obshchei Khimii (1960), Vol. 30, pp. 976-

981).

The rejection of claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over Ponomarev et al. is as applied in the Office Action dated July 11, 2003 and incorporated herein. The rejection has been maintained for the following reasons:

Applicant states that the process according to Ponomarev et al. is not carried out in an electrolysis cell in which at least one hydrogenation catalyst is present. In response, Ponomarev teaches a process carried out in an electrolysis cell (= the methoxylation of furan was carried out in an electrolyzer) [page 991, fourth full paragraph].

The only electrolytically active step in claim 1 is the electrolytically oxidizing step. There is no hydrogenation catalyst recited in claim 1 or in the electrolytically oxidizing step, and it is unclear why a hydrogenation catalyst would be in an electrochemically oxidizing step.

The hydrogenating step in claim 1 is not an electrolytic hydrogenating step. Thus, the hydrogen obtained by feeding hydrogen to the electrolysis circuit from outside is hydrogen that has already been produced by another source (from outside) and fed into a container that does not add to the hydrogenating process (powerless electrolysis cell). Furthermore, there is no hydrogenation catalyst present in the hydrogenating step.

Applicant states that it has not been pointed out to the Applicants as to where any specific motivation lies within Ponomarev et al. that would motivate the skilled

artisan reading the same to modify the process disclosed therein towards the claimed invention. In response, there are many ways to produce hydrogen, i.e., chemically and electrochemically (e.g., the electrolyzation of water). The substitution of one known equivalent technique for another may be obvious even if the prior art does not expressly suggest the substitution. *Ex parte Novak* 16 USPQ 2d 2041 (BPAI 1989); *In re Leshin* 125 USPQ 416; *Lyon v. Bausch & Lomb* 106 USPQ 1; *Graver Tank & Manufacturing Co. V. Linde Air Products Co.* 85 USPQ 328 (Supr. Ct.). MPEP § 2144.07.

Applicant states that it appears that the Examiner is relying on the Applicant's disclosure to supply motivation to modify the disclosure of Ponomarev et al. to arrive at the claimed invention. In response, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Ponomarev teaches a process comprising an electrolytic oxidizing step and an hydrogenating step.

The limitation of "hydrogenating the C-C double bond" reads on a chemical hydrogenation.

The limitation of "hydrogen fed to the electrolysis circuit from the outside" reads

on a chemically produced hydrogen that is fed to a powerless electrolysis cell.

The container (= powerless electrolysis cell) the hydrogenation is performed in does not add to the hydrogenating process.

Response to Arguments

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1

line 13, the " , " (comma) should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims **3-6, 10, 13-16 and 20-22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3

line 2, "the at least one hydrogenation catalyst" lacks antecedent basis.

Claim 13

line 2, "the at least one hydrogenation catalyst" lacks antecedent basis.

Claim 21

line 2, it is unclear how “a noble gas” can be the hydrogenation catalyst. Isn't a noble gas inert?

Claim 22

line 2, it is unclear how “a noble gas” can be the hydrogenation catalyst. Isn't a noble gas inert?

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claims **3-6, 10, 14-16 and 22** define over the prior art of record because the prior art does not teach or suggest a process as claimed in claim 1, wherein at least one electrode is in contact with the at least one hydrogenation catalyst.

Claims **7 and 17** define over the prior art of record because the prior art does not teach or suggest a process as claimed in claim 1, wherein at least one of the electrodes used is a gas diffusion electrode.

Claims **8-9 and 18-19** define over the prior art of record because the prior art does not teach or suggest a process as claimed in claim 1, wherein at least one of the electrodes used is a composite comprising at least one conventional electrode material and at least one material for a gas diffusion electrode.

Claim **11 and 12** define over the prior art of record because the prior art does not teach or suggest a process as claimed in claim 1, wherein the alkoxylated furan compound (B) produced in step (i) is reacted in step (ii) to form at least one ring-opened butane derivative.

Claims **13 and 20-21** define over the prior art of record because the prior art does not teach or suggest a process as claimed in claim 2, wherein at least one electrode is in contact with the at least one hydrogenation catalyst.

The prior art does not contain any language that teaches or suggests the above. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims 3-6, 10, 13-16, and 20-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 7-9, 11-12 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

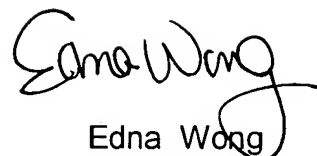
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (703) 308-3818. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

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Edna Wong
Primary Examiner
Art Unit 1753

EW
December 20, 2003